



DUPLICATE FOR H1386-7-8] FORE RIVER
.. " H1395]
.. " H4204-5-6] SPARROW'S F

H 1385-110-1A FORE RIVER

BETHLEHEM SHIPBUILDING CO.
BETHLEHEM, PA.
CONTRACT PLAN
PROFILE OUTBOARD

<u>SCALE $\frac{1}{8}$" = 1 FT.</u>	<u>DATE</u>
DRAWN	APPROVED
TRACED 112	APPROVED
CHECKED R.H.P.	APPROVED

LOC.	ALTERATION
I	PLAN CHANGED TO AGREE WITH APPROVED PRINT OF AUG. 16-12.
II	PLAN NO CHANGED FROM H.1385-11-1 TO H.1385-11D-1A
III	HULLS NO. 1395, 4204, 4205 & 4206 ADDED.
IV	NOTE OMITTING WINCH FOR 1395-4204-5 & 6 AND ADDING CAPSTAN AS PER OWNERS INSTRUCTIONS.

W997-0206

American Arrow
S/S Japan Arrow
ex

Bethlehem S.B. Corp # 1386

Profile

Boston report 1427

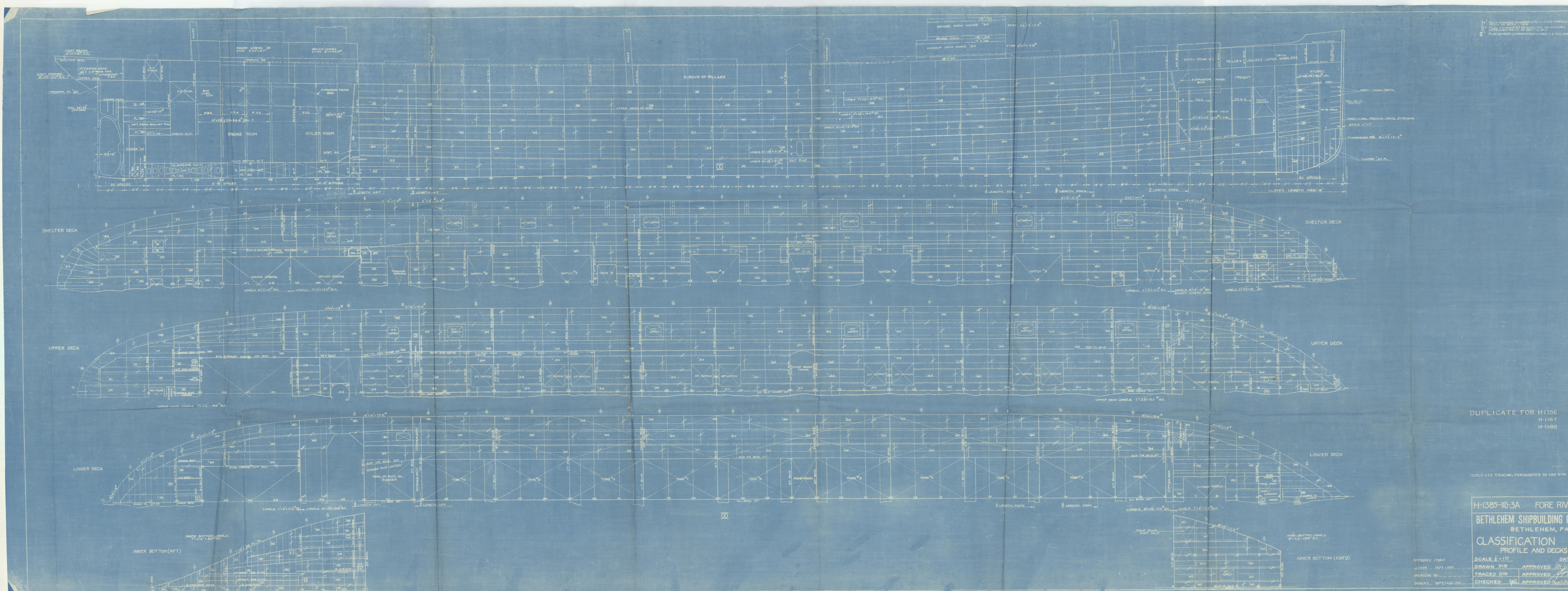
RETAIN



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WIA

W997 - 0206



William G. Humphrey

S.S. China Arrow Boston Report 1404
Japan Arrow 1429
India Arrow 1459
Java Arrow 1483
Agribay 1491

3

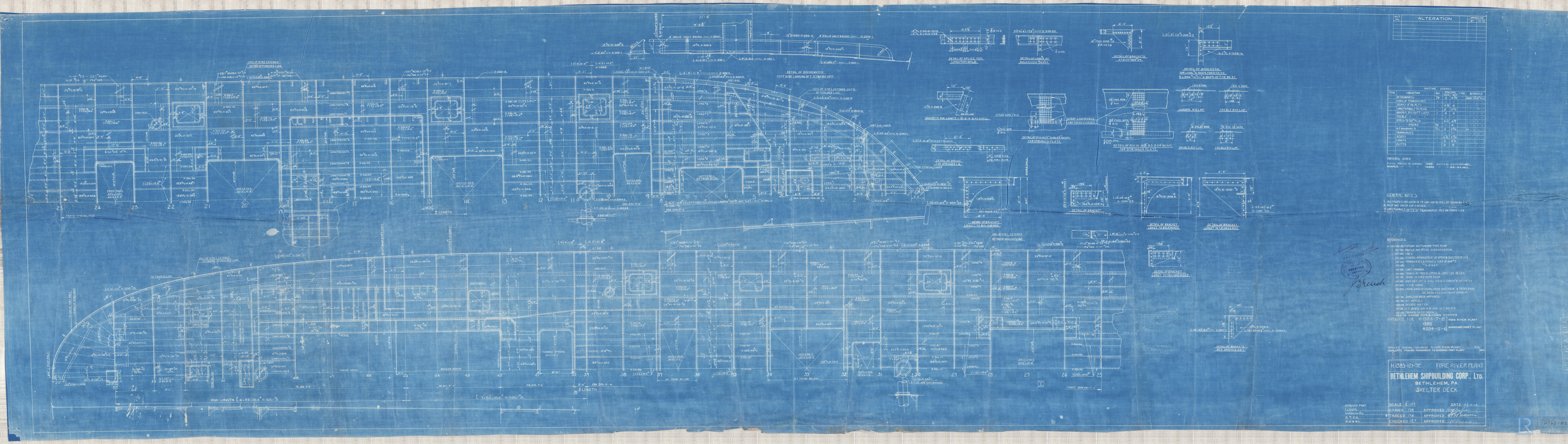
Bethlehem 1385/6/7/8

Shelter Deck.



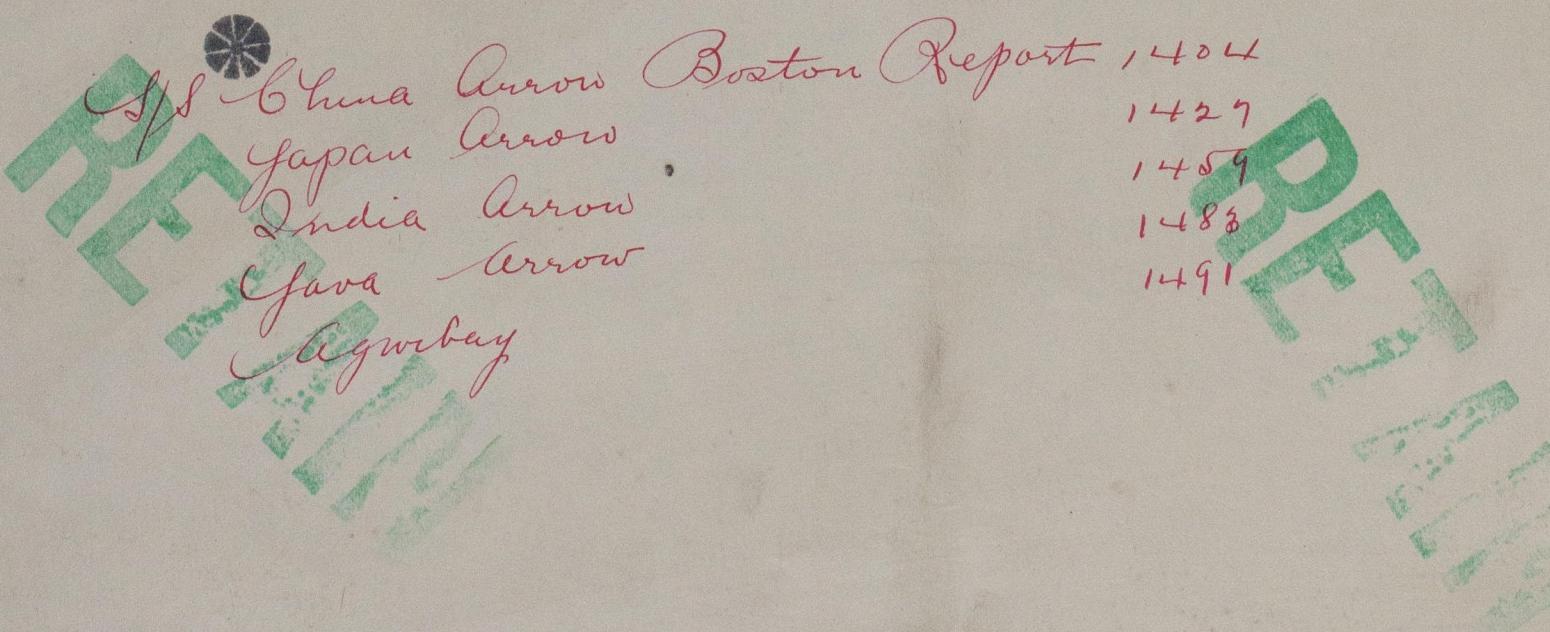
W1163-0027

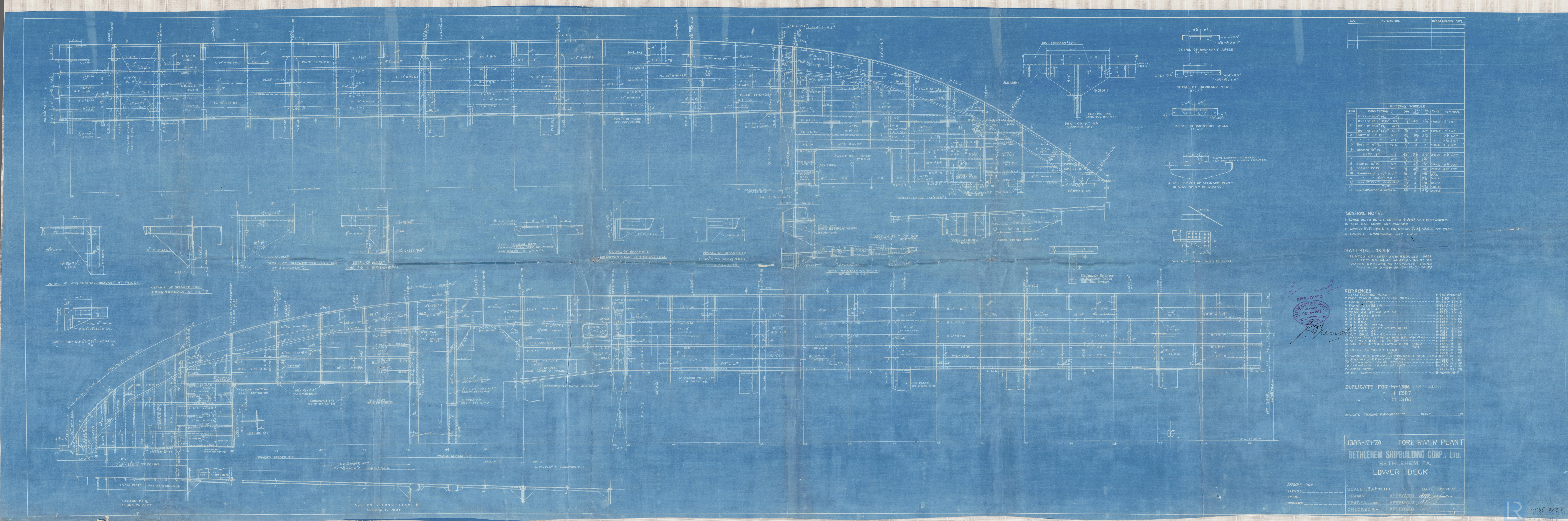
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Bethlehem 1385/6/7/8

Lower Deck





W997-0205

American Arrow
S/S Japan Arrow ^{ex}

Bethlehem S. B. Corp ~ 1386

Midhip Section

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ALT. No.	ALTERATION	
	APPROVED BY	DATE

RIVETING SCHEDULE			
ITEM	CONNECTION	DIA	SPACING PIAS. IN.
CLIP L TO TRANSVS.		5	
FACE		6	
BUTTS		4	
BRACKETS		5	

GENERAL NOTES
 1. ALL L'S TO HAVE OUTSTANDING LEG CUT BACK 45° WHERE PRACTICABLE.
 2. ALL RIVETS BELOW UPPER DECK EXCEPT IN WING OIL SPC. 8 DIA.
 3. " ABOVE " AND " ".
 4. IN CLIP L'S TO SHELL TO STAGGER WITH RIVETS.
 THRO SHELL.
 5. FOR HEIGHTS OF LONG'S AT 4 BHD. SEE DRAWINGS OF 4 BHD.
 6. 4. OF WEB FLS. ON FRM. LINE.
 7. MIN. EDGE DIST. = 12 DIAM. OF RIV.

MATERIAL ORDER
 PLATES ORDERED ON SCH. I3851, 7, I112, I7, I9, 24, 26, 34, 35.

SHAPES
 " " SHELL EXPANSION FORD.
 " " AFT.

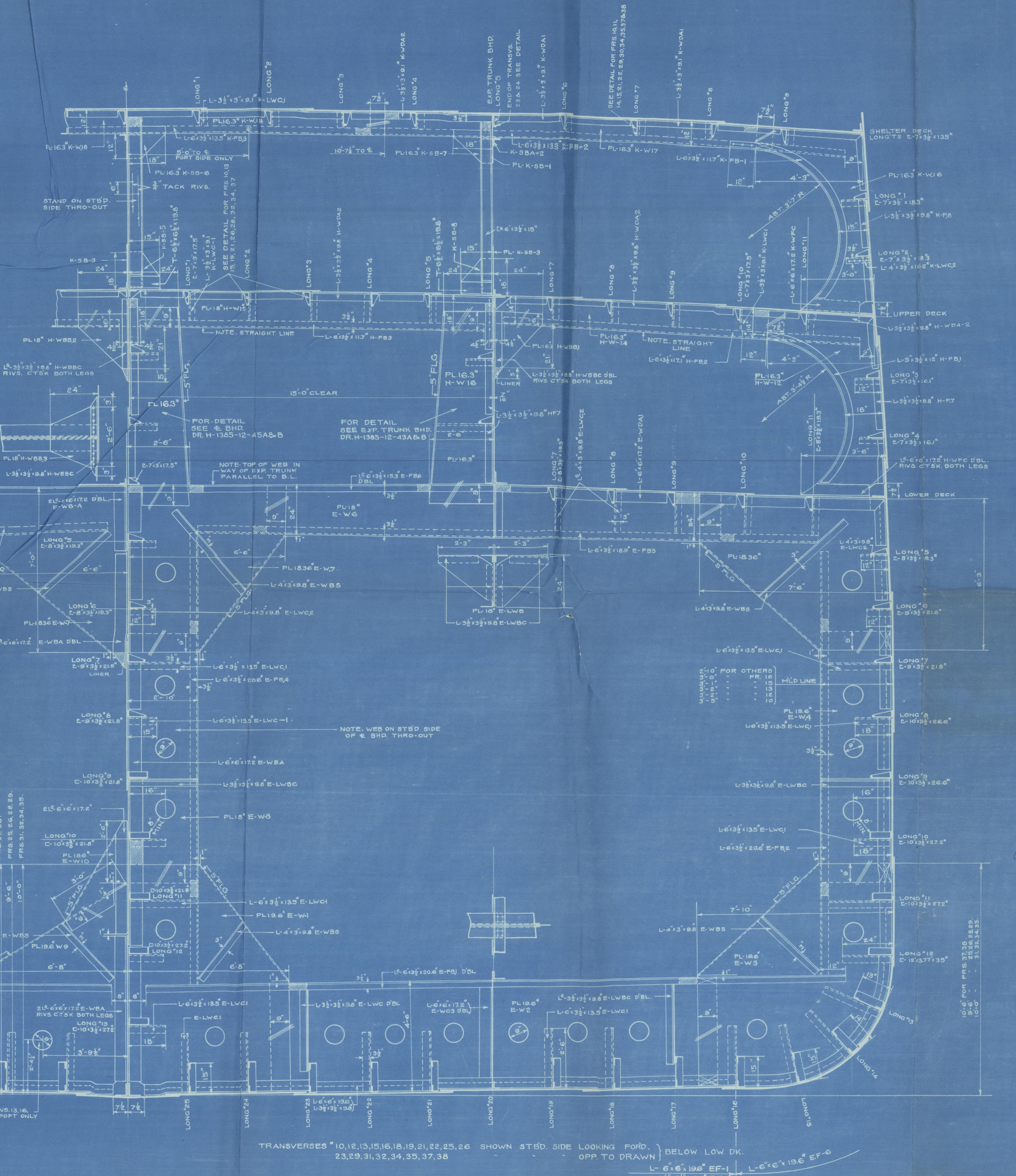
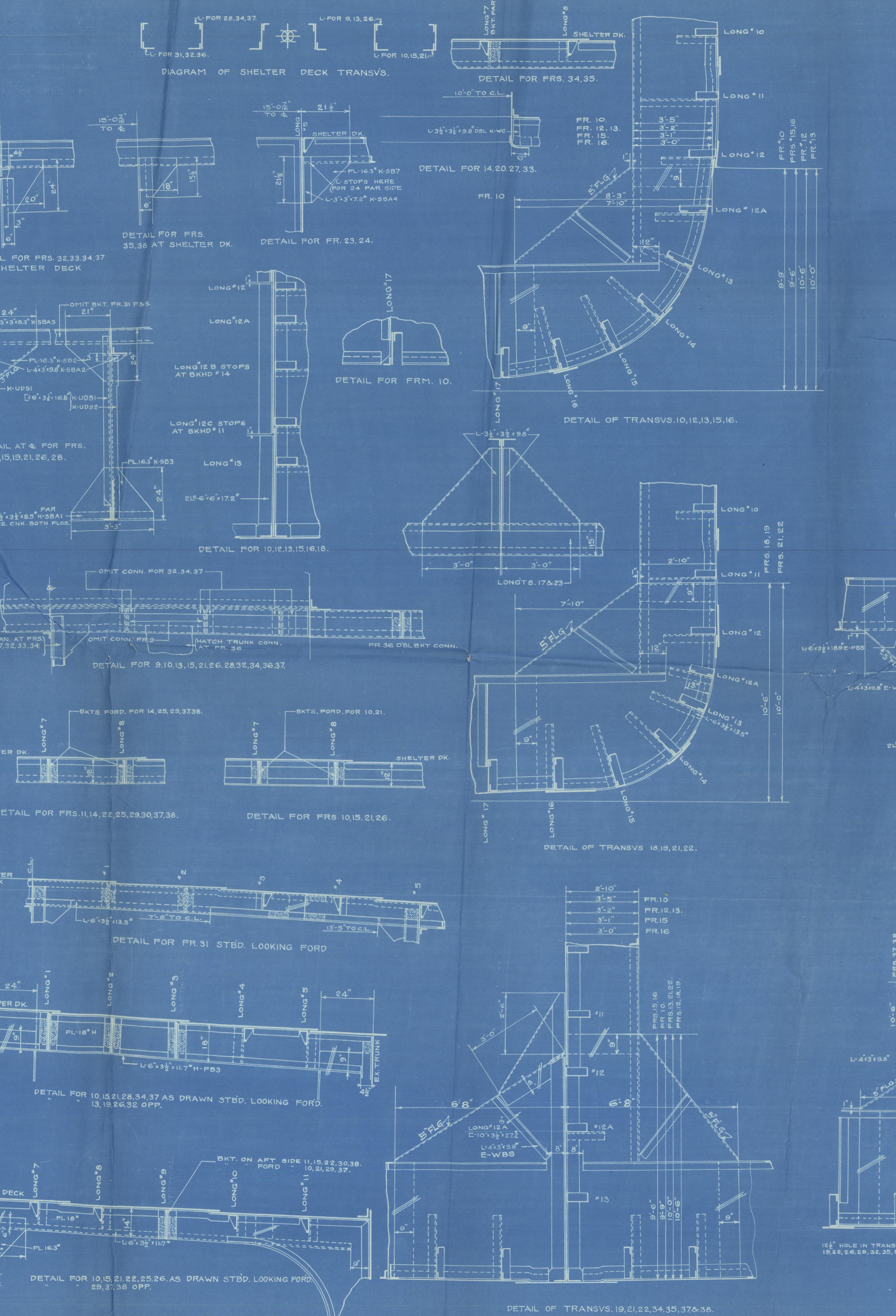
REFERENCES
 H-1385-1-2 MIDSHIP SECTION & TYPE PLAN
 -12-37A LOWER DECK
 -12-39 UPPER
 -12-40 SHELTER
 -12-45A & BHD. & KEEL ON AFT
 -12-45 " FORD.
 -12-43A EXPANSION TRUNK BHD. 7-24
 -12-43B " 24-45
 houston *[initials]*
 APPROVED

LOUIS REGISTER OF SHIPS
 SEP 15 1919
 NEW YORK

DUPLICATE FOR H-1386
 H-1387
 H-1388

DUPLICATE TRACING FORWARDED TO

H-1385-1-3 FORE RIVER PLANT
 BETHLEHEM SHIPBUILDING CORP., LTD.
 BETHLEHEM, PA.
 TRANSVERSSES
 10, 12, 13, 15, 16, 18, 19, 21, 22, 25, 26, 28,
 29, 31, 32, 34, 35, 37, 38
 SCALE 1'-0"
 DRAWN APPROVED *[initials]*
 TRACED I58 APPROVED *[initials]*
 CHECKED *[initials]* APPROVED *[initials]*



Bethlehem Shipbuilding Corp^r Ltd.
Boilers built by Skarlan Plant
For Fox River Plant Hull 1386
Copy of print approved 29th July 1919

W9974 - 0204

N° 4440
LLOYD'S TEST
330 lbs
W.P. 220 lbs
(2) 18-3-20. J.B.
(1) 14-4-20

American Arrow
S/S Japan Arrow ~~esc~~

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RECEIVED



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Donkey Boiler

S/S China Arrow

Japan Arrow

India Arrow

Java Arrow

Bethlehem S B C 1385/6/7/8

Boston report 1404 etc

1427

1459

1483



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W1163-0023

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GENERAL NOTES

NAME	SIZE	WORKING PRESSURE TO U.S. RULES	WORKING PRESSURE TO A.B.
SHELL	$\frac{11}{32}$ "	$\frac{11600 \times .34375}{18} = 2.20$	$\frac{19 \times (55-1) \times 25.6 \times 7.7}{36 \times 28} = 15$
FURNACE WRAP	$\frac{3}{8}$ "	$\frac{51.5}{30.75} [(18.75 \times 6) - (1.03 \times 19.625)] = 154.5$	$\frac{51.5}{30.75} [(18.75 \times 6) - (1.03 \times 19.625)] = 154$
PLATE %	—	$\frac{2.75 - 75}{2.75} \times 100 = 72.7$	$\frac{2.75 - 75}{2.75} \times 100 = 72.$
RIVET %	—	$\frac{2 \times 4418 \times 23}{2.75 \times .34375 \times 28} \times 100 = 76.7$	$\frac{2 \times 4418}{2.75 \times .34375} \times \frac{23}{25.6} = 89$

NAME	SIZE	WORKING PRESSURE TO U.S. RULES	WORKING PRESSURE TO LLOYD
SHELL	11"	$\frac{12000 \times .34375}{18} = 729$	$\frac{19.61 \times (5.5 - 2) \times 72.7}{36} = 138$
FURNACE WRAPPER	32 3"	$\frac{51.5}{30.75} \times [(18.75 \times 6) - (1.03 \times 19.625)] = 154.5$	$\frac{50 \times (300 \times .375 - 19.625)}{30.75} = 151$
PLATE %		$\frac{2.75 - .75}{2.75} \times 100 = 72.7$	$\frac{2.75 - .75}{2.75} \times 100 = 72.7\%$
RIVET %		$\frac{2 \times .4418 \times 23}{2.75 \times .34375 \times 28} \times 100 = 76.7$	$\frac{2 \times .4418}{2.75 \times .34375} \times 85 = 79.4\%$

HEATING SURFACE 70 TUBES 2" DIA.	EFFECTIVE SQ.FT. 100	TOTAL 146.6
FURNACES	" " 14	<u>14.0</u>
TOTAL BOILER	" " 114	160.6

WORKING PRESSURE 125 LBS. PER SQ. IN.

TO BE MADE TO U.S. INSPECTION, LLOYD'S, AND AMERICAN BUREAU OF SHIPPING CONT. 1381-1388
TO BE MADE TO U.S. INSPECTION AND AMERICAN BUREAU OF SHIPPING - CONT. #1376 TO 1381
TO BE MADE TO U.S. INSPECTION AND LLOYDS - CONT. #4201-4202-1385-1386
EVAPORATION 140 LBS. OF WATER PER SQ.FT. OF GRATE

$\frac{1}{2}$ " DIA. SAFETY VALVE = 1376 TO 1381
 $\frac{2}{3}$ " " " " = 4201 + 4202 - 1385 - 1386 - 1387 - 1388
MINIMUM TENSILE STRENGTH OF SHELL PLATES 58000 L
MINIMUM TENSILE STRENGTH OF SHELL PLATES 60000 L

A circular blue ink stamp from the Lloyds Register of Shipping. The outer ring contains the text "LLOYDS REGISTER OF SHIPPING" at the top and "NEW YORK" at the bottom. The center of the stamp contains the date "AUG 26 1919". Above the stamp, there is handwritten text "P.M." with a checkmark next to it.

BETHLEHEM SHIPBUILDING CORP. LTD.
BETHLEHEM, PA.

VERTICAL DONKEY BOILER

SCALE :- 1 1/2 = 1'-0" DATE :- 7

DRAWN APPROVED
TRACED VREIMER APPROVED

CHECKED *Kevan* APPROVED

E-1376 - 35

Lloyd's Re
Foundation

Bethlehem 1385/6/7/8
Orange of Shaftey

S/S. China Arrow
Japan Arrow
India Arrow
Java Arrow
Agribay

Boston Reports 1404
1425
1459
1483
1491

